10891/P01/AGS/IBSS/LP PATENTS

AMENDMENT

IN THE CLAIMS

Please amend Claims 1, 32, 73, 93, 105, 114, & 116 so that the claims read as follows:

1. (Currently amended) A method of cleaning a molybdenum mask having a series of metals deposited thereon, comprising:

placing the molybdenum mask in only a single ~~an~~ aqueous cleaning solution including hydrochloric acid in a range of greater than 5% but less than 50% by weight; and

removing the molybdenum mask from the cleaning solution after a predetermined period of time.

2. (Previously presented) The method of claim 1, further comprising:

agitating the cleaning solution at a predetermined agitation level for the predetermined period of time.

3. (Original) The method of claim 2, further comprising:

putting the molybdenum mask in a container; and

wherein placing the molybdenum mask in the cleaning solution includes placing the container in the cleaning solution.

4. (Original) The method of claim 3, further comprising:

closing the container.

5. (Original) The method of claim 4, wherein:

the cleaning solution is contained within a first vessel;

the first vessel is contained within a second vessel; and

the second vessel further contains an aqueous solution surrounding the first vessel.

6. (Original) The method of claim 5, further comprising:
covering the first vessel with a lid.

7. (Original) The method of claim 6, further comprising:
drying the mask with nitrogen.

8. (Original) The method of claim 7, further comprising:
washing the mask with de-ionized water.

9. (Canceled)

10. (Previously presented) The method of claim 1, wherein:
the hydrochloric acid concentration is about 15-37% by weight.

11. (Previously presented) The method of claim 1, wherein:
the hydrochloric acid concentration is about 25 to less than 50% by weight.

12. (Previously presented) The method of claim 1, wherein:
the hydrochloric acid concentration is about 37% by weight.

13. (Original) The method of claim 8, wherein:
the predetermined period of time is at least 5 minutes and no more than 300 minutes.

14. (Original) The method of claim 13, wherein:

the predetermined period of time is at least 10 minutes and no more than 100 minutes.

15. (Original) The method of claim 14, wherein:
the predetermined period of time is at least 15 minutes and no more than 40 minutes.

16. (Original) The method of claim 15, wherein:
the predetermined period of time is at least 25 minutes and no more than 30 minutes.

17. (Original) The method of claim 8, wherein:
the agitation level is quantified in terms of agitation frequency.

18. (Original) The method of claim 17, wherein:
the agitation frequency is between 18 kHz and 2 MHz.

19. (Original) The method of claim 18, wherein:
the agitation frequency is between 20 kHz and 1 MHz.

20. (Original) The method of claim 19, wherein:
the agitation frequency is between 20 kHz and 100 kHz.

21. (Original) The method of claim 20, wherein:
the agitation frequency is between 25 kHz and 50 kHz.

22. (Original) The method of claim 8, wherein:
the agitation level is quantified in terms of agitation power.

23. (Original) The method of claim 22, wherein:
the agitation power is between 1 W/gal and 100 W/gal.

24. (Original) The method of claim 23, wherein:
the agitation power is between 2 W/gal and 50 W/gal.

25. (Original) The method of claim 24, wherein:
the agitation power is between 5 W/gal and 40 W/gal.

26. (Original) The method of claim 25, wherein:
the agitation power is between 10 W/gal and 30 W/gal.

27. (Original) The method of claim 26, wherein:
the agitation power is between 20 W/gal and 30 W/gal.

28. (Original) The method of claim 27, wherein:
the agitation power is about 25 W/gal.

29. (Original) The method of claim 1, wherein:
the predetermined period of time is at least 5 hours and no more than 48 hours.

30. (Original) The method of claim 1, wherein:
the molybdenum mask has a set of through holes.

31. (Original) The method of claim 1, wherein:
the series of metals includes chrome, copper, gold and a lead/tin mixture.

32. (Currently amended) A method of cleaning a mask, comprising:

placing the mask in only a single ~~an~~ aqueous cleaning solution including at least 5% but less than 50% hydrochloric acid by weight; and

agitating the cleaning solution at a predetermined agitation level for a predetermined period of time.

33. (Original) The method of claim 32, further comprising:

putting the mask in a container; and

wherein placing the mask in the cleaning solution includes placing the container in the cleaning solution.

34. (Original) The method of claim 33, further comprising:

closing the container.

35. (Original) The method of claim 34, further comprising:

receiving the mask.

36. (Original) The method of claim 32, wherein:

the mask is a molybdenum mask.

Claim 37 (canceled).

38. (Previously presented) The method of claim 32, wherein:

the cleaning solution is contained within a first vessel;

the first vessel is contained within a second vessel; and

the second vessel further contains an aqueous solution surrounding the first vessel.

39. (Original) The method of claim 38, further comprising:

covering the first vessel with a lid.

40. (Previously presented) The method of claim 32, further comprising:

drying the mask with nitrogen.

41. (Original) The method of claim 40, further comprising:

washing the mask with de-ionized water.

Claim 42 (canceled).

43. (Previously presented) The method of claim 32, wherein:

the hydrochloric acid concentration is about 15 to 37% by weight.

44. (Previously presented) The method of claim 32, wherein:

the hydrochloric acid concentration is about 25 to less than 50% by weight.

45. (Previously presented) The method of claim 44, wherein:

the hydrochloric acid concentration is about 37% by weight.

46. (Previously presented) The method of claim 32, wherein:

the predetermined period of time is at least 5 minutes and no more than 300 minutes.

47. (Original) The method of claim 46, wherein:

the predetermined period of time is at least 10 minutes and no more than 100 minutes.

48. (Original) The method of claim 47, wherein:

the predetermined period of time is at least 15 minutes and no more than 40 minutes.

49. (Original) The method of claim 48, wherein:
the predetermined period of time is at least 25 minutes and no more than 30 minutes.

Claim 50 (canceled).

51. (Previously presented) The method of claim 32, wherein:
the agitation level is quantified in terms of agitation frequency.

52. (Original) The method of claim 51, wherein:
the agitation frequency is between 18 kHz and 2 MHz.

53. (Original) The method of claim 52, wherein:
the agitation frequency is between 20 kHz and 1 MHz.

54. (Original) The method of claim 53, wherein:
the agitation frequency is between 20 kHz and 100 kHz.

55. (Original) The method of claim 54, wherein:
the agitation frequency is between 25 kHz and 50 kHz.

56. (Original) The method of claim 55, wherein:
the agitation frequency is between 25 kHz and 40 kHz.

57. (Previously presented) The method of claim 32, wherein:
the agitation level is quantified in terms of agitation power.

58. (Original) The method of claim 57, wherein:

the agitation power is between 1 W/gal and 100 W/gal.

59. (Original) The method of claim 58, wherein:
the agitation power is between 2 W/gal and 50 W/gal.

60. (Original) The method of claim 59, wherein:
the agitation power is between 5 W/gal and 40 W/gal.

61. (Original) The method of claim 60, wherein:
the agitation power is between 10 W/gal and 30 W/gal.

62. (Original) The method of claim 61, wherein:
the agitation power is between 20 W/gal and 30 W/gal.

63. (Original) The method of claim 57, wherein:
the agitation power is about 25 W/gal.

64. (Previously presented) The method of claim 32, wherein:
the container is made of Teflon®.

65. (Previously presented) The method of claim 32, wherein:
the container is made of a material essentially inert with respect to hydrochloric acid.

66. (Previously presented) The method of claim 32, wherein:
the container is made of high-density polyethylene.

67. (Previously presented) The method of claim 32, wherein:
the method is performed within an environment having a temperature between 20°C and 70°C.

68. (Original) The method of claim 67, wherein:

the method is performed within an environment having a temperature between 20°C and 50°C.

69. (Original) The method of claim 68, wherein:

the method is performed within an environment having a temperature between 25°C and 40°C.

70. (Original) The method of claim 68, wherein:

the method is performed within an environment having a temperature of about 25°C.

71. (Original) The method of claim 68, wherein:

the method is performed within an environment having a temperature of about 30°C.

72. (Original) The method of claim 68, wherein:

the method is performed within an environment having a temperature of about 40°C.

73. (Currently amended) A method of cleaning a mask, comprising:

putting the mask in a container;

placing the container in only a single cleaning solution; and

wherein the cleaning solution is contained within a first vessel;

the first vessel is contained within a second vessel; and

the second vessel further contains an aqueous solution surrounding the first vessel.

74. (Original) The method of claim 73, further comprising:
closing the container.

75. (Original) The method of claim 74, further comprising:
covering the first vessel with a lid.

76. (Original) The method of claim 75, further comprising:
washing the mask with de-ionized water.

77. (Original) The method of claim 76, further comprising:
drying the mask with nitrogen.

78. (Original) The method of claim 77, further comprising:
receiving the mask.

79. (Original) The method of claim 73, wherein:
the cleaning solution is a hydrochloric acid solution.

80. (Original) The method of claim 79, wherein:
the mask is a molybdenum mask.

81. (Original) The method of claim 75, further comprising:
agitating the cleaning solution.

Claims 82-92. (canceled)

93. (Currently amended) A method of cleaning a molybdenum mask having a series of metals deposited thereon, comprising:
placing the molybdenum mask in only a single ~~an~~ aqueous cleaning solution including more than 5% but less than 50% hydrochloric acid by weight;

agitating the cleaning solution; and

removing the molybdenum mask from the cleaning solution after a predetermined period of time.

Claim 94. (Canceled)

95. (Previously presented) The method of claim 93, further comprising:

putting the molybdenum mask in a container; and

wherein placing the molybdenum mask in the cleaning solution includes placing the container in the cleaning solution.

96. (Original) The method of claim 95, further comprising:

closing the container.

97. (Original) The method of claim 96, further comprising:

receiving the mask.

98. (Canceled)

99. (Original) The method of claim 98, wherein:

the cleaning solution is contained within a first vessel;

the first vessel is contained within a second vessel; and

the second vessel further contains an aqueous solution surrounding the first vessel.

100. (Original) The method of claim 99, further comprising:

covering the first vessel with a lid.

101. (Original) The method of claim 100, further comprising:

drying the mask with nitrogen.

102. (Original) The method of claim 101, further comprising:
washing the mask with de-ionized water.

103. (Previously presented) The method of claim 93, wherein:
the hydrochloric acid concentration is about 37% by weight.

104. (Original) The method of claim 93, wherein:
the series of metals includes chrome, copper, gold and a lead/tin mixture.

105. (Currently amended) A method of cleaning a molybdenum mask having a series of metals including chrome, copper, gold and a lead/tin mixture deposited thereon, comprising:
placing the molybdenum mask in only a single ~~an~~ aqueous cleaning solution including about at least 5% but less than 50% hydrochloric acid by weight; and
removing the molybdenum mask from the cleaning solution after a predetermined period of time.

106. (Original) The method of claim 105, further comprising:
agitating the cleaning solution at a predetermined agitation level for a predetermined period of time.

107. (Original) The method of claim 106, further comprising:
putting the molybdenum mask in a container; and
wherein placing the molybdenum mask in the cleaning solution includes placing the container in the cleaning solution.

108. (Original) The method of claim 107, further comprising:
receiving the mask.

Claim 109 (Canceled)

110. (Previously presented) The method of claim 105, wherein:
the cleaning solution is contained within a first vessel;
the first vessel is contained within a second vessel; and
the second vessel further contains an aqueous solution surrounding the first vessel.

111. (Original) The method of claim 110, further comprising:
covering the first vessel with a lid.

112. (Original) The method of claim 111, further comprising:
drying the mask with nitrogen.

113. (Original) The method of claim 112, further comprising:
washing the mask with de-ionized water.

114. (Currently amended) The method of claim 105, wherein:
the hydrochloric acid concentration ~~of~~ is about 25 to less than 50% by weight.

115. (Previously presented) The method of claim 105, wherein:
the hydrochloric acid concentration is about 37% by weight

116. (Currently amended) A method of cleaning a molybdenum mask having a series of metals deposited thereon, comprising:

placing the molybdenum mask in only a single ~~an~~ aqueous cleaning solution ~~consisting essentially of~~ including at least 5% but less than 50% hydrochloric acid by weight; and

removing the molybdenum mask from the cleaning solution after a predetermined period of time.

117. (Previously presented) The method of claim 116, wherein:

the hydrochloric acid concentration is about 10-37% by weight.